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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/825,654

04/16/2004

K.R. Kishore

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EXAMINER

MAHMOUDZADEH, NIMA

ART UNIT

PAPER NUMBER

2609

MAIL DATE

DELIVERY MODE

09/18/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/825,654

Applicant(s)

KISHORE ET AL.

Examiner

Nima Mahmoudzadeh

Art Unit

2609

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04/16/2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Galand et al. (US Patent No. 6,424,624)

**Regarding claim 1**, Galand et al. teach a method of managing flow of datagram traffic, the method comprising the steps of:

providing a first networked device that is operably connected to a second networked device (Column 4, lines 22-25);

transferring datagrams from a first port of the first device to a first port of the second device using a pathway that is operably connected to a second port of the first device and a second port of the second device (Column 6, lines 26-39); and

selectively pausing an individual port on the first device that is causing over-subscription of the first port of the second device (Column 8, lines 2-16) .

**Regarding claim 2,** Galand et al. teach the method of claim 1, further comprising the step of re-activating a paused port by transmitting a re-activation signal to the paused port (Column 8, lines 12-16).

**Regarding claim 3,** Galand et al. teach the method of claim 1, further comprising the step of re-activating a paused port pursuant to the detection of a condition wherein the first port of the second device has datagram traffic flowing therethrough in an amount that is below a lower trigger value (Column 7, lines 13-18).

**Regarding claim 4,** Galand et al. teach the method of claim 1, further comprising the step of re-activating a paused port pursuant to the passage of a pre-determined time increment (Column 11, lines 28-31).

**Regarding claim 5,** Galand et al. teach the method of claim 1, wherein the selectively pausing step comprises using in-band control frames to pause the individual port (Column 6, lines 54-67).

**Regarding claim 6,** Galand et al. teach the method of claim 1, wherein the selectively pausing step comprises using separate pathways between the first and second networked devices to transmit datagrams and control frames (Column 7, lines 39-43).

**Regarding claim 7,** Galand et al. teach the method of claim 1, wherein the selectively pausing step comprises using a non-memory-consuming communication to pause the individual port (Column 3, lines 40-58).

**Regarding claim 8**, Galand et al. teach the method of claim 1, wherein the selectively pausing step comprises referencing a listing of ports that are over-subscribed (Column 3, lines 50-58).

**Regarding claim 9**, Galand et al. teach the method of claim 8, wherein the selectively pausing step comprises periodically updating the listing of ports that are over-subscribed (Ports information and congestion info is saved and updated within predetermined time. Column 3, lines 50-58).

**Regarding claim 10**, Galand et al. teach the method of claim 1, wherein the selectively pausing step comprises selectively pausing individual ports on devices other than the first and second device (Column 4, lines 22-25 and column 6, lines 26-39).

**Regarding claim 11**, Galand et al. teach a method of managing flow of datagram traffic, the method comprising the steps of:

providing a first networked device that is operably connected to a second networked device (Column 4, lines 22-25);

transferring datagrams from a first port of the first device to a first port of the second device using a pathway that is operably connected to a second port of the first device and a second port of the second device (Column 6, lines 26-39); and

signaling the first port of the first device to send fewer datagrams to the first port of the second device when an over-subscription is detected at the first port of the second device (Column 8, lines 12-16).

**Regarding claim 12**, Galand et al. teach the method of claim 11, wherein the signaling step comprises signaling the first port of the first device to send datagrams in proportion to a total number of datagrams attempting to reach the first port of the second device (Column 8, lines 2-16).

**Regarding claim 13**, Galand et al. teach the method of claim 11, wherein the signaling step is performed using a non-memory-consuming communication to signal the first port of the first device (Column 3, lines 40-58).

**Regarding claim 14**, Galand et al. teach the method of claim 11, wherein the signaling step comprises broadcasting a signal that alerts ports on the network that the first port of the second device is over-subscribed (Column 8, lines 2-11).

**Regarding claim 15**, Galand et al. teach the method of claim 11, wherein the transferring step comprises referencing a listing of ports on the network that are over-subscribed before transferring a datagram between the first port of the first device to the first port of the second device (Column 14, lines 31-65).

**Regarding claim 16**, Galand et al. teach the method of claim 11, further comprising resuming unrestricted datagram transmission to the first port of the second device by broadcasting a signal (Column 4, lines 62-65).

**Regarding claim 17**, Galand et al. teach the method of claim 11, further comprising resuming unrestricted datagram transmission to the first port of the second device when a total number of datagrams attempting to reach the first port of the second device falls below a lower trigger value (Column 13, lines 1-7).

**Regarding claim 18**, Galand et al. teach the method of claim 11, further comprising resuming unrestricted datagram transmission to the first port of the second device after passage of a pre-determined time increment (Column 11, lines 28-35).

**Regarding claim 19**, Galand et al. teach the method of claim 11, wherein the signaling step comprises using in-band control frames (Column 6, lines 54-59).

**Regarding claim 20**, Galand et al. teach the method of claim 11, wherein the signaling step comprises using a separate link to transmit control frames (Fig. 2, lower link from port 23 to port 24).

**Regarding claim 21**, Galand et al. teach a communications system comprising:

a first data distribution means operably connected to a second data distribution means (Column 4, lines 22-25);

a first communications means for transferring datagrams from a first port of the first data distribution means to a first port of the second data distribution means (Column 6, lines 26-39); and

control means for selectively pausing individual ports that are causing over-subscription of the first port of the second data distribution means (Column 8, lines 2-16).

**Regarding claim 22**, Galand et al. teach the system of claim 21, further comprising a second communications means between the first data distribution means

Art Unit: 2609

and the second data distribution means wherein the second communications means is non-lossy (Column 9, lines 30-39).

**Regarding claim 23**, Galand et al. teach the system of claim 21, further comprising storage means for storing information concerning which ports in the network are over-subscribed (Column 4, lines 62-65).

**Regarding claim 24**, Galand et al. teach a communications system comprising:  
a first data distribution means operably connected to a second data distribution means for distributing datagrams over a network (Column 4, lines 22-25);

communications means for transferring the datagrams from a first port of the first data distribution means to a first port of the second data distribution means (Column 6, lines 26-39); and

control means for signaling the first port of the first data distribution means to send fewer datagrams to the first port of the second data distribution means when an over-subscription is detected at the first port of the second data distribution means (Column 8, lines 12-16).

**Regarding claim 25**, Galand et al. teach the system of claim 24, further comprising a second communications means for allowing communication between the first data distribution means and the second data distribution means, wherein the second communications means is non-lossy (Column 9, lines 30-39).



**Regarding claim 26,** Galand et al. teach the system of claim 24, further comprising storage means for storing information concerning which ports in the network are over-subscribed (Column 4, lines 62-65).

**Regarding claim 27,** Galand et al. teach a communications system comprising:

- a first device operably connected to a second device (Column 4, lines 22-25);
- a first controller capable of transferring datagrams from a first port of the first device to a first port of the second device (Column 6, lines 26-39); and
- a second controller capable of selectively pausing individual ports in the first device that are contributing to over-subscription of the first port of the second device (Column 8, lines 12-16).

**Regarding claim 28,** Galand et al. teach the system of claim 27, further comprising a storage unit for storing information concerning which ports in the second device are over-subscribed (Column 4, lines 62-65).

**Regarding claim 29,** Galand et al. teach a communications system comprising:

- a first device operably connected to a second device (Column 4, lines 22-25);
- a first controller capable of transferring datagrams from a first port of the first device to a first port of the second device (Column 6, lines 26-39); and

Art Unit: 2609

a second controller capable of signaling the first port of the first device to send fewer datagrams to the second port of the second device when an over-subscription is detected at the second port of the second device (Column 8, lines 12-16).

**Regarding claim 30**, Galand et al. teach the system of claim 29, further comprising a storage unit for storing information concerning which ports in the network are over-subscribed (Column 4, lines 62-65).

### ***Conclusion***

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Erimli et al. (US Patent No. 6,405,258) teach method and apparatus for controlling the flow of data frames through a network switch on a port-by-port basis

4. Any responses to this Office Action should be **faxed** to (571) 273-8300 or **mailed** to:

Commissioner for Patent  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses should be brought to**  
Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nima Mahmoudzadeh whose telephone number is (571)

Art Unit: 2609


270-3527. The examiner can normally be reached on Monday - Friday 7:30am - 5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Q. Tieu can be reached on (571) 272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nima Mahmoudzadeh

AU 2609

  
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